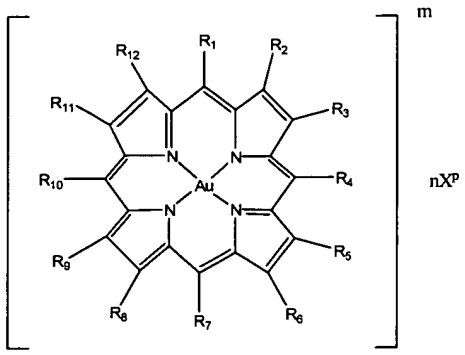
AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for induction of apoptosis of cancer cells, comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1, R_4, R_7 and R_{10} are each neutral or negatively charged, and are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl, -(6-membered)aryl or -(5 to 10-membered)heteroaryl, each of which may be substituted with one or more -halo, -(C_1-C_6)alkyl, [[-O(C_1-C_6)alkyl]], -OSO_2 or [[-NO_2]] -SO_3;

R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each independently -H, -(C_1-C_6)alkyl, each of which may be substituted with one or more -C(O)OR_{13}, -halo or =O groups;

R_{13} is -(C_1-C_6)alkyl;

each X^p is independently a pharmaceutically acceptable counter-ion;

m is an integer ranging from -3 to 5;

p is an integer ranging from -3 to 3;

n is equal to the absolute value of m/p; and

a pharmaceutically acceptable carrier.

2. (Original) The method of claim 1, wherein R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -H.; X^p is Cl^-; m is 1; and n is 1.

3. (Original) The method of claim 2, wherein R_1, R_4, R_7 and R_{10} are each -phenyl.

4. (Original) The method of claim 2, wherein R_1, R_4, R_7 and R_{10} are each -4-methylphenyl.

5. (Cancelled).

6. (Original) The method of claim 2, wherein R_1, R_4, R_7 and R_{10} are each -4-bromophenyl.

7. (Original) The method of claim 2, wherein R_1, R_4, R_7 and R_{10} are each -4-chlorophenyl.

8. (Cancelled).

9. (Previously Presented) The method of claim 2, wherein R_1, R_4, R_7 and R_{10} are each -pentafluorophenyl.

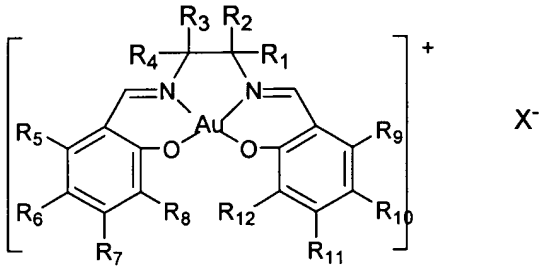
10. (Original) The method of claim 1, wherein R_1, R_4, R_7 and R_{10} are each -H; R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -ethyl; X^p is Cl^-; m is 1; and n is 1.

11. (Original) The method of claim 1, wherein R_1, R_4, R_7 and R_{10} are each -H; and R_2 and R_{11} are each -ethyl; R_3, R_5, R_9 and R_{12} are each -methyl; R_6 and R_8 are each -methyl-3-propanoate; X^p is Cl^-; m is 1; and n is 1.

12. (Cancelled).

13. (Previously Presented) The method of claim 1, wherein R_1, R_4, R_7 and R_{10} are each -4-sulfonatophenyl; R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -H; X^p is Na^+; m is +3; and n is 3.

14. (Withdrawn) A method for induction of apoptosis of cancer cells comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

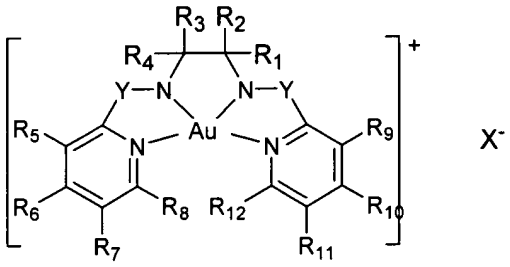
15. (Withdrawn) The method of claim 14, wherein R_1-R_4 are each -H; and X is Cl^-.

16. (Withdrawn) The method of claim 15, wherein R_5-R_{12} are each -H.

17. (Withdrawn) The method of claim 15, wherein R_5, R_7-R_9 and R_{11}-R_{12} are each -H; and R_6 and R_{10} are each -Cl.

18. (Withdrawn) The method of claim 15, wherein R_5, R_7, R_9 and R_{10} are each -H; and R_6, R_8, R_{10} and R_{12} are each -Cl.

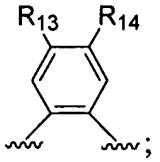
19. (Withdrawn) A method for induction of apoptosis of cancer cells comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:

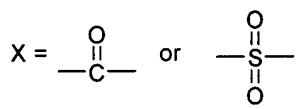


or a pharmaceutically acceptable salt thereof, wherein:

(a) R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl -O(C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo; or

(b) R_1 and R_4 are absent; and R_2 and R_3 together form a 6-membered aryl ring of formula



Y is  ;

R_{13} and R_{14} are each -H or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

20. (Withdrawn) The method of claim 19, wherein

Y is ; and

X is Cl^-.

21. (Withdrawn) The method of claim 20, wherein R_1-R_{12} are each -H.

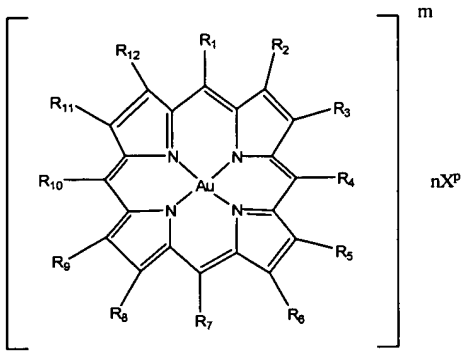
22. (Withdrawn) The method of claim 20, wherein R_1-R_4 are each -methyl; and R_5-R_{12} are each -H.

23. (Withdrawn) The method of claim 20, wherein R_1 and R_4-R_{12} are each -H; and R_2 and R_3 are each -phenyl.

24. (Withdrawn) The method of claim 20, wherein R_1 and R_4 are absent; R_2 and R_3 together form  ; and

R_5-R_{12} are each -H.

25. (Currently amended) A method for inhibition of reverse transcriptase of Human Immunodeficiency virus-1, comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1, R_4, R_7 and R_{10} are each neutral or negatively charged, and are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl, -(6-membered)aryl or -(5 to 10-membered)heteroaryl, each of which may be substituted with one or more -halo, -(C_1-C_6)alkyl, [[-O(C_1-C_6)alkyl]], -OSO_2 or [[-NO_2]] -SO_3;

R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each independently -H, -(C_1-C_6)alkyl, each of which may be substituted with one or more -C(O)OR_{13}, -halo or =O groups;

R_{13} is -(C_1-C_6)alkyl;

each X^p is independently a pharmaceutically acceptable counter-ion;

m is an integer ranging from -3 to 5;

p is an integer ranging from -3 to 3;

n is equal to the absolute value of m/p; and

a pharmaceutically acceptable carrier.

26. (Original) The method of claim 25, wherein R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -H.; X^p is Cl^-; m is 1; and n is 1.

27. (Original) The method of claim 26, wherein R_1, R_4, R_7 and R_{10} are each -phenyl.

28. (Original) The method of claim 26, wherein R_1, R_4, R_7 and R_{10} are each -4-methylphenyl.

29. (Cancelled).

30. (Original) The method of claim 26, wherein R_1, R_4, R_7 and R_{10} are each -4-bromophenyl.

31. (Original) The method of claim 26, wherein R_1, R_4, R_7 and R_{10} are each -4-chlorophenyl.

32. (Cancelled).

33. (Previously Presented) The method of claim 26, wherein R_1, R_4, R_7 and R_{10} are each -pentafluorophenyl.

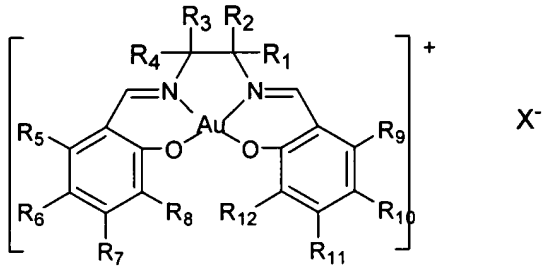
34. (Original) The method of claim 25, wherein R_1, R_4, R_7 and R_{10} are each -H; R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -ethyl; X^p is Cl^-; m is 1; and n is 1.

35. (Original) The method of claim 25, wherein R_1, R_4, R_7 and R_{10} are each -H; and R_2 and R_{11} are each -ethyl; R_3, R_5, R_9 and R_{12} are each -methyl; R_6 and R_8 are each -methyl-3-propanoate; X^p is Cl^-; m is 1; and n is 1.

36. (Cancelled).

37. (Previously Presented) The method of claim 25, wherein R_1, R_4, R_7 and R_{10} are each -4-sulfonatophenyl; R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each -H; X^p is Na^+; m is =3; and n is 3.

38. (Withdrawn) A method for inhibition of reverse transcriptase of Human Immunodeficiency virus-1 comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

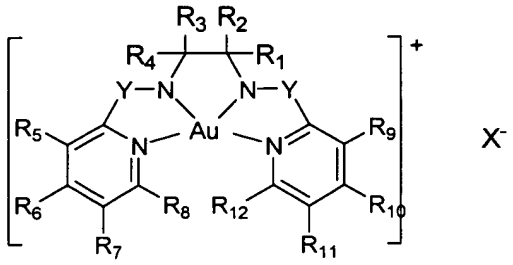
39. (Withdrawn) The method of claim 38, wherein R_1, R_1', R_2 and R_2' are each -H; and X is Cl^-.

40. (Withdrawn) The method of claim 39, wherein R_3-R_{10} are each -H.

41. (Withdrawn) The method of claim 38, wherein R_3, R_5-R_7 and R_9-R_{10} are each -H; and R_4 and R_8 are each -Cl.

42. (Withdrawn) The method of claim 38, wherein R_3, R_5, R_7 and R_9 are each -H; and R_4, R_6, R_8 and R_{10} are each -Cl.

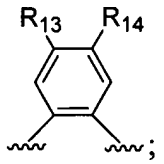
43. (Withdrawn) A method for inhibition of reverse transcriptase of Human Immunodeficiency virus-1 comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of formula:

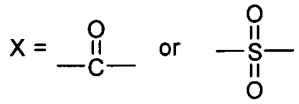


or a pharmaceutically acceptable salt thereof, wherein:

(a) R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl -O(C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo; or

(b) R_1 and R_4 are absent; and R_2 and R_3 together form a 6-membered aryl ring of formula



Y is  ;

R_{13} and R_{14} are each -H or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

44. (Withdrawn) The method of claim 43, wherein

Y is  ; and

X is Cl^-.

45. (Withdrawn) The method of claim 44, wherein R_1-R_{12} are each -H.

46. (Withdrawn) The method of claim 44, wherein R_1-R_4 are each -methyl; and R_5-R_{12} are each -H.

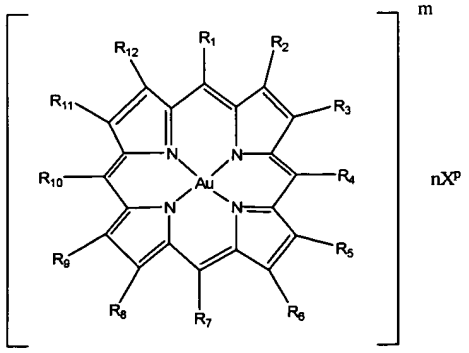
47. (Withdrawn) The method of claim 44, wherein R_1 and R_4-R_{12} are each -H; and $R_2$and R_3 are each -phenyl.

48. (Withdrawn) The method of claim 44, wherein R_1 and R_4 are absent; R_2 and R_3 together form 

; and

R_5-R_{12} are each -H.

49. (Withdrawn) A pharmaceutical composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1, R_4, R_7 and R_{10} are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl, -(6-membered)aryl or -(5 to 10-membered)heteroaryl, each of which may be substituted with one or more -halo, -(C_1-C_6)alkyl, -O(C_1-C_6)alkyl, -OSO_2 or -NO_2;

R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each independently -H, -(C_1-C_6)alkyl, each of which may be substituted with one or more -C(O)OR_{13}, -halo or =O groups;

R_{13} is -(C_1-C_6)alkyl;

each X^p is independently a pharmaceutically acceptable counter-ion;

m is an integer ranging from -3 to 5;

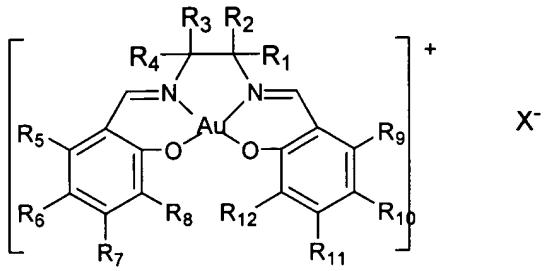
p is an integer ranging from -3 to 3;

n is equal to the absolute value of m/p; and

a pharmaceutically acceptable carrier.

50. (Withdrawn) The composition of claim 49 further comprising 3'-azido-2',3'-dideoxythymidine.

51. (Withdrawn) A pharmaceutical composition comprising an effective amount of a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

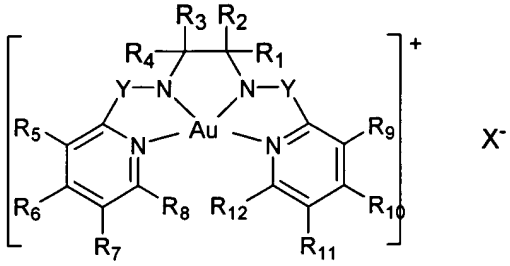
R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

52. (Withdrawn) The composition of claim 51 further comprising 3'-azido-2',3'-dideoxythymidine.

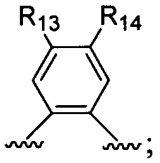
53. (Withdrawn) A pharmaceutical composition comprising an effective amount of a gold(III) complex of formula:

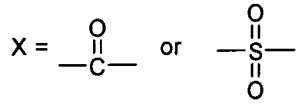


or a pharmaceutically acceptable salt thereof, wherein:

(a) R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl -O(C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo; or

(b) R_1 and R_4 are absent; and R_2 and R_3 together form a 6-membered aryl ring of formula



Y is  ;

R_{13} and R_{14} are each -H or -halo;

X is a counter-anion; and

a pharmaceutically acceptable carrier.

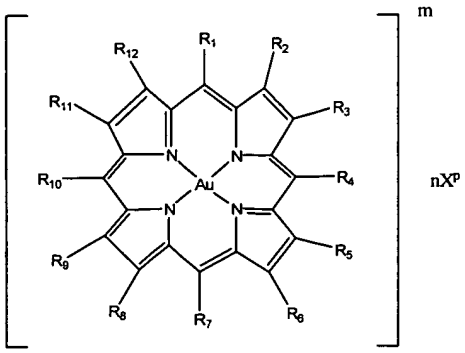
54. (Withdrawn) The composition of claim 53 further comprising 3'-azido-2',3'-dideoxythymidine.

55. (Currently amended) [[A]] The method ~~for inhibition of reverse transcriptase of Human Immunodeficiency virus-1, comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of claim 50~~ of claim 25, wherein said composition further comprises 3'-azido-2',3'-dideoxythymidine.

56. (Withdrawn) A method for inhibition of reverse transcriptase of Human Immunodeficiency virus-1 comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of claim 52.

57. (Withdrawn) A method for inhibition of reverse transcriptase of Human Immunodeficiency virus-1 comprising administering to a patient in need thereof a composition comprising an effective amount of a gold(III) complex of claim 54.

58. (Currently amended) A complex formed between a ligand and a gold(III) complex of formula:



or a pharmaceutically acceptable salt thereof, wherein:

R_1, R_4, R_7 and R_{10} are each neutral or negatively charged, and are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl, -(6-membered)aryl or -(5 to 10-membered)heteroaryl, each of which may be substituted with one or more -halo, -(C_1-C_6)alkyl, [[-O(C_1-C_6)alkyl]], -OSO_2 or [[-NO_2]] -SO_3;

R_2, R_3, R_5, R_6, R_8, R_9, R_{11} and R_{12} are each independently -H, -(C_1-C_6)alkyl, each of which may be substituted with one or more -C(O)OR_{13}, -halo or =O groups;

R_{13} is -(C_1-C_6)alkyl;

each X^p is independently a pharmaceutically acceptable counter-ion;

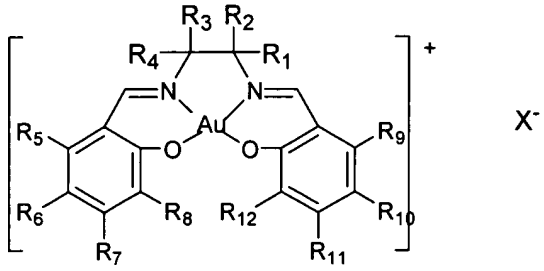
m is an integer ranging from -3 to 5;

p is an integer ranging from -3 to 3; and

n is equal to the absolute value of m/p.

59. (Original) The complex of claim 58, wherein the ligand is selected from the group consisting of porphyrins, metalloporphyrins, amino acids, peptides, polypeptides, proteins, nucleotides, polynucleotides, deoxyribonucleic acid, and ribonucleic acid.

60. (Withdrawn) A complex formed between a ligand and a gold(III) complex of formula:



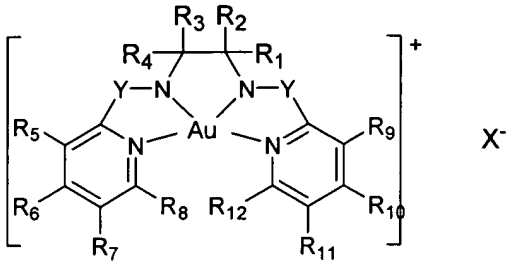
or a pharmaceutically acceptable salt thereof, wherein:

R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl or -O(C_1-C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo; and

X is a counter-anion.

61. (Withdrawn) The complex of claim 60, wherein the ligand is selected from the group consisting of porphyrins, metalloporphyrins, amino acids, peptides, polypeptides, proteins, nucleotides, polynucleotides, deoxyribonucleic acid, and ribonucleic acid.

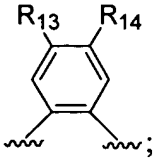
62. (Withdrawn) A complex formed between a ligand and a gold(III) complex of formula:



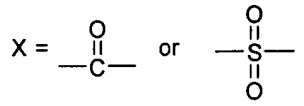
or a pharmaceutically acceptable salt thereof, wherein:

(a) R_1- R_{12} are each independently -H, -halo, -(C_1-C_6)alkyl -O(C_6)alkyl which may be substituted with one or more -O(C_1-C_6)alkyl or -halo; or

(b) R_1 and R_4 are absent; and R_2 and R_3 together form a 6-membered aryl ring of formula



;

Y is 

;

R_{13} and R_{14} are each -H or -halo; and

X is a counter-anion.

63. (Withdrawn) The complex of claim 62, wherein the ligand is selected from the group consisting of porphyrins, metalloporphyrins, amino acids, peptides, polypeptides, proteins, nucleotides, polynucleotides, deoxyribonucleic acid, and ribonucleic acid.